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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/161,294	09/28/1998	TETSUNOBU KOCHI	35.C12980	7439

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EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT PAPER NUMBER

2612

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/161,294	<b>Applicant(s)</b> KOCHI, TETSUNOBU	
	<b>Examiner</b> LUONG T. NGUYEN	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004 and 02 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 3 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/18/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/18/2004 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed 12/02/2005 have been fully considered and they are persuasive. The Examiner agrees that the Claims 3-6, 11, 13, as originally filed on 9/28/1998 read on figure 5; and figure 5, which reads on pending claims 3, 15-18, is the elected species by the Applicant.

### ***Claim Objections***

3. Claims 16 is objected to because of the following informalities:  
Claim 16 (line 2), "a plurality pf" should be changed to --a plurality of--.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

Art Unit: 2612

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 3, 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirano (JP 4010569).

Regarding claim 3, Hirano discloses an image pickup apparatus comprising:  
a photoelectric conversion area in which a plurality of pixels are two-dimensionally arranged in horizontal and vertical directions, wherein each of said plurality of pixels includes a photoelectric conversion element and an amplification element which amplifies a signal from said photoelectric conversion element to output the amplified signal (each pixel includes output electrode 3, control electrode 4, transistor 5, figure 1);

a plurality of first vertical output lines (vertical signal lines YL1, YL3, figure 1) which output sequentially signals from the pixels arranged in the vertical direction;

a plurality of second vertical output lines (vertical signal lines YL2, YL4, figure 1) which output sequentially signals from the pixels arranged in the vertical direction;

a first horizontal output line (horizontal scan signal generating part 2 connected to vertical signal lines YL1, YL3, figure 1) which outputs sequentially the signals from said plurality of first vertical output lines; and

a second horizontal output line (horizontal scan signal generating part 2 connected to vertical signal lines YL2, YL4, figure 1) which outputs sequentially the signals outputted from said plurality of second vertical output lines,

wherein said first horizontal output line is arranged on a side of a first side of said photoelectric conversion area, said second horizontal output line is arranged on a side of a second side of said photoelectric conversion area, and said first side and said second side of said photoelectric conversion area are opposite to each other in the vertical direction (two horizontal scan signal generating parts 2 are arranged on opposite site to each other in the vertical direction with respect to the photoelectric conversion area, figure 1);

a plurality of first load elements (accumulations Ct which connected to vertical signal lines YL1, YL3, figure 1), wherein at least one first load element is arranged to control a direction of current flowing through each of said plurality of a first vertical output lines; and

a plurality of second load elements (accumulations Ct which connected to vertical signal lines YL2, YL4, figure 1), wherein at least one second load element is arranged to control a direction of current flowing through each of said plurality of second vertical output lines,

wherein said plurality of first load elements and said plurality of second load elements are arranged on sides opposite to each other with respect to said photoelectric conversion area (accumulations Ct which connected to vertical signal lines YL1, YL3 and accumulations Ct which connected to vertical signal lines YL2, YL4 are arranged on sides opposite to each other with respect to said photoelectric conversion area, figure 1).

Regarding claim 15, Hirano discloses wherein said plurality of first vertical output lines and said plurality of second vertical output lines are arranged alternately (vertical signal lines YL1, YL2, YL3, YL4 are arranged alternately, figure 1).

Regarding claim 16, Hirano discloses an addition circuit which adds to each other the signals from a plurality of the pixels adjacent to each other (inherently included in the circuit of figure 1 for adding the signals from pixels adjacent to each other, which connected to the same vertical signal line).

Regarding claim 17, Hirano discloses the amplification element and the first load element construct a source follower (output electrode 3 and accumulation capacitor  $C_t$  construct a source follower, figure 1), and the amplification element and the second load element construct a source follower circuit (output electrode 3 and accumulation capacitor  $C_t$  construct a source follower circuit, figure 1).

Regarding claim 18, Hirano discloses wherein said plurality of first load elements are arranged between said photoelectric conversion area and said first horizontal output line (accumulation capacitors  $C_t$  are arranged between the photoelectric conversion area and the horizontal scan generating part 2 on the upper part of figure 1), and said plurality of second load elements are arranged between said photoelectric conversion area and said second horizontal output line (accumulation capacitors  $C_t$  are arranged between the photoelectric conversion area and the horizontal scan generating part 2 on the lower part of figure 1).

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571) 272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN  
02/21/06



**LUONG T. NGUYEN  
PATENT EXAMINER**